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Group Art Unit: 2156

REMARKS

*Claim Rejections - 35 USC §112*

1. **Claim 13 is rejected under 35 USC §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. A definition of a “programmer/feeder system” was not disclosed in the specification.**

Referring to claim 13, Applicants respectfully disagree since it is not necessary to define systems that are known to those having ordinary skill in the art. An example of a programmer/feeder system is fully described in the Specification in the Background in page 2, line 28, through page 3, line 22.

2. **Claim 13 is rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The “programming/feeder system” described in the specification is indefinite.**

Referring to claim 13, Applicants respectfully disagree since Applicants do not consider the programmer/feeder system as subject matter claimed in the present invention. The terminology appears in the preamble of the claim so it is not a claimed element but a prior art system with which the present invention operates.

*Claim Rejections - 35 USC §102*

3. **Claims 1-4, 13, 15-16, and 25 are rejected under 35 USC §102(e) as being unpatentable over Hosaka et al. (USPN 5,896,292, hereinafter “Hosaka”).**

Referring to claim 1, the claim has been amended to include a limitation not disclosed in Hosaka of:

“providing processing and programming information related to a microdevice as a task;” [underlining for clarity]

Hosaka discloses a monitor computer for an automated system in which workpiece production is controlled on per workpiece basis or a per-process basis. [Hosaka Abstract]

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As the Examiner states on Office Action page 9, lines 13-14:

"Hosaka fails to explicitly teach:  
-controlling the handling of microdevices;"

Since Hosaka fails to explicitly teach controlling the handling of microdevices, it must fail to also explicitly teach "providing processing information related to a microdevice." It is respectfully submitted that "[a]nticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim." Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co. (730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984)(citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed Dir. 1983)))

In addition, the claim has been amended to include limitations not disclosed in Hosaka of:

"assembling the processing and programming information for the task in the computer system;  
providing the processing and programming information for the task for off-line connection from the computer system to the processing system..."

Hosaka provides workpiece related processing instructions to the automated system and returns workpiece related data back to the computer. There is no disclosure that both processing and programming information are provided to the automated system. This is especially true since there are no microdevices involved.

The support for the addition of programming information to the claims is in Specification page 6, lines 10-13.

Referring to claims 2 and 14, the amended claims contain the following limitation, as exemplified in claim 2, of:

"providing a processing system including a programming system on-line with said computer system;  
providing the processing and programming information for the task for on-line connection from the computer system to the processing system"  
[underlining for clarity]

Hosaka does not disclose a programming system and, as explained above for claim 1, Hosaka does not disclose that both processing and programming information are provided to the automated system.

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Referring to claims 3 and 15, the claims contain the limitations, as exemplified in claim 3, related to:

"providing an operator mode;"

It is respectfully submitted that an "operator" is a person who runs the system and "operator mode" is a mode in which the operator has control. It would be obvious to those having ordinary skill in the art that this is different from "apparatus mode", "operating state", etc.

Referring to claims 4 and 16, the claims contain the limitations, as exemplified in claim 4, related to:

"providing an administrator mode;"

It is respectfully submitted that an "administrator" is a person who manages the system and "administrator mode" is a mode in which the administrator has control. It would be obvious to those having ordinary skill in the art that this is different from a situation" inherent that Hosaka's "administrator mode" occurs when varying the inputs/outputs".

Further, in claims 3 and 4, Applicants claim two different modes, but Hosaka only has one mode.

Referring to claim 13, it is submitted that the inapplicability of 35 USC 112 was explained above and that the claim is allowable for substantially the same reasons as given above in claim 1.

In addition, it is respectfully submitted that "programming information" is not disclosed in Hosaka. Nor does Hosaka FIG. 1 or 2 disclose an apparatus where "programming" and feeding are performed in a single device. There is also no item 109.

Referring to claim 25, the amended claims contain the following limitation, as exemplified in claim 2 of:

"providing information for affecting changes selected from a group consisting of software, firmware, and a combination thereof using a portable memory medium." [underlining for clarity]

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It is respectfully submitted that Hosaka does not disclose that the external storage device 6503 provides, for example, changes to software, firmware, or a combination thereof. Hosaka FIG. 66 shows the external storage device merely as memory.

In addition to the above, it is respectfully submitted that the claims 2-4, 15-16, and 25 depend from independent claims 1 and 13, and are believed to be allowable since they contain all the limitations set forth in the independent claim from which they depend and claim additional unobvious combinations thereof.

Based on the above, it is respectfully submitted that claims 1-4, 13, 15-16, and 25 are not anticipated under 35 USC §102(e) and are patentable over Hosaka.

*Claim Rejections - 35 USC §103*

4. Claims 5, 9-11, 17 and 21-23 are rejected under 35 USC §102(e) (sic) as being unpatentable over Hosaka et al. (USPN 5,896,292, hereinafter "Hosaka") in view of Fujino et al. (USPN 5,262,954, hereinafter "Fujino").

In view of the citation of two references and the principal heading, it is believed these rejections are actually under 35 USC §103(a) and that they have been treated as such.

Referring to claims 5 and 17, the claims include limitations, as exemplified in claim 5, not disclosed in Hosaka and/or Fujino of:

"inputting the number of processed microdevices to be output from the processing system;...  
controlling the handling of microdevices;  
processing microdevices;"

Hosaka has been summarized above for claim 1.

Fujino discloses a host controller for an automated printed-wiring board assembly and manufacturing system [Fujino Abstract, Fujino col. 1, lines 5-18]. Fujino does not teach or suggest processed, handling, or processing microdevices, which are programmable devices.

Therefore, since neither Hosaka nor Fujino teaches microdevices, the claimed limitations are not taught or suggested by them, either singularly or in combination.

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Referring to claims 9 and 21, the claims contain the limitations, as exemplified in claim 9, related to:

"providing microdevice information"

It is respectfully submitted that a "microdevice", as claimed, is an integrated circuit which is capable of being programmed by programming information. It would be obvious to those having ordinary skill in the art that this is unobvious in view of "automatic working devices".

Referring to claims 10 and 22, the claims contain the limitations, as exemplified in claim 10, of:

"transferring includes the use of a portable memory medium;"

It is respectfully submitted that the above has been addressed with regard to claim 25, where it is explained that Hosaka does not disclose that the external storage device 6503 provides, for example, changes to software, firmware, or a combination thereof. Hosaka FIG. 66 shows the external storage device merely as memory.

Referring to claims 11 and 23, the claims contain the limitations, as exemplified in claim 11, of:

"transferring includes the use of a direct communication connection."

It is respectfully submitted that claim 11 depends from claim 9 and relates to transferring information related to microdevices, which is not disclosed in either Hosaka or Fujino.

5. Claims 6 and 18 are rejected under 35 USC §103(a) as being unpatentable over Hosaka et al. (USPN 5,896,292, hereinafter "Hosaka") in view of Fujino et al. (USPN 5,262,954, hereinafter "Fujino") and further in view of Nagatomo et al. (USPN 4,544,318, hereinafter "Nagatomo").

Referring to claims 6 and 18, the dependent claims contain the limitations, as exemplified in claim 6, of:

"providing a number of microdevices;  
determining the number of microdevices processed;

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determining the number of microdevices handled; and developing statistics from the number of microdevices processed and handled."

Hosaka and Fujino have been summarized above for claims 1 and 5. Nagatomo discloses an automatic control semiconductor wafer processing/manufacturing system. [Nagatomo Abstract, Nagatomo col. 1, lines 8-23]

It is respectfully submitted that Nagatomo discloses a system for processing semiconductor wafers before forming microdevices and before any processing and programming information can be used. Therefore, Nagatomo cannot teach or suggest the limitations related to microdevices.

It is further respectfully submitted that claim 6 depends from claim 5, which depends from independent claim 1, and is believed to be allowable since it contains all the limitations set forth in the independent claim from which it depends and claims unobvious combinations thereof. Claim 18 depends from claim 17, which depends from independent claim 13, and is believed to be allowable since it contains all the limitations set forth in the independent claim from which it depends and claims unobvious combinations thereof.

Based on the above, it is respectfully submitted that claims 6 and 18 are unobvious under 35 USC §103(a) and are patentable over Hosaka in view of Fujino and further in view of Nagatomo.

6. Claims 7 and 19 are rejected under 35 USC §103(a) as being unpatentable over Hosaka et al. (USPN 5,896,292, hereinafter "Hosaka") in view of Fujino et al. (USPN 5,262,954, hereinafter "Fujino") and further in view of Csipkes et al. (USPN 6,167,401, hereinafter "Csipkes").

Referring to claims 7 and 19, the dependent claims contain the limitations, as exemplified in claim 7, of:

"serializing the microdevices; and maintaining a log of the serialized microdevices."

Hosaka and Fujino have been summarized above for claims 1 and 5. Csipkes discloses a global communications network of a manufacturing facility in which multiple assembly stations are under the control of a database driven network for use by a parts assembler, which takes parts and assembles them into devices.

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Csipkes seems to relate to splicing optical fibers and making optical devices (Csipkes col. 3, lines 28-30). It is respectfully submitted that there is no teaching or suggestion that microdevices are being processed or programmed.

It is further respectfully submitted that claim 7 depends from claim 5, which depends from independent claim 1, and is believed to be allowable since it contains all the limitations set forth in the independent claim from which it depends and claims unobvious combinations thereof. Claim 19 depends from claim 17, which depends from independent claim 13, and is believed to be allowable since it contains all the limitations set forth in the independent claim from which it depends and claims unobvious combinations thereof.

Based on the above, it is respectfully submitted that claims 7 and 19 are unobvious under 35 USC §103(a) and are patentable over Hosaka in view of Fujino and further in view of Csipkes.

7. Claims 8 and 20 are rejected under 35 USC §103(a) as being unpatentable over Hosaka et al. (USPN 5,896,292, hereinafter "Hosaka") in view of Grundy et al. (USPN 5,224,055, hereinafter "Grundy").

Referring to claims 8 and 20, the dependent claims contain the limitations, as exemplified in claim 8, of:

"combining a plurality of tasks to define a kit; and  
performing the processing of a kit through the off-line connection.."

Hosaka and Fujino have been summarized above for claims 1 and 5. Grundy discloses a circuit design system [Grundy Abstract].

Grundy in col. 2, lines 35-41, discloses kits of hardware components. It is respectfully submitted that Grundy does not teach or suggest a kit of "tasks" or things to be done as claimed in claims 8 and 20.

It is further respectfully submitted that claim 8 depends from independent claim 1 and is believed to be allowable since it contains all the limitations set forth in the independent claim from which it depends and claims unobvious combinations thereof. Claim 20 depends from independent claim 13 and is believed to be allowable since it contains all the limitations set forth in the independent claim from which it depends and claims unobvious combinations thereof.

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Based on the above, it is respectfully submitted that claims 8 and 20 are unobvious under 35 USC §103(a) and are patentable over Hosaka in view of Grundy.

8. Claims 12 and 24 are rejected under 35 USC §103(a) as being unpatentable over Hosaka et al. (USPN 5,896,292, hereinafter "Hosaka") in view of Csipkes et al. (USPN 6,167,401, hereinafter "Csipkes").

Referring to claims 12 and 24, the dependent claims contain the limitations, as exemplified in claim 12, of:

"providing an administrator mode; and  
protecting provision of the operator mode using a password input in the administrator mode."

Hosaka and Csipkes have been summarized above for claim 1 and 7 and neither teaches nor suggests an administrator mode and an operator mode.

It is further respectfully submitted that claim 12 depends from independent claim 1 and is believed to be allowable since it contains all the limitations set forth in the independent claim from which it depends and claims unobvious combinations thereof. Claim 24 depends from independent claim 13 and is believed to be allowable since it contains all the limitations set forth in the independent claim from which it depends and claims unobvious combinations thereof.

Based on the above, it is respectfully submitted that claims 12 and 24 are unobvious under 35 USC §103(a) and are patentable over Hosaka in view of Csipkes.

The other references cited by the Examiner showing the prior art have been considered and are not believed to disclose, teach, or suggest, either singularly or in combination, Applicants' invention as claimed.

### *Conclusion*

In view of the above, it is submitted that the claims are in condition for allowance and reconsideration of the rejections is respectfully requested. Allowance of claims 1-25 at an early date is solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this

Docket No.: 1015-011

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Fred Albert Dykins, et al. : Confirmation No.: 1215  
Serial No.: 09/484,865 : Art Unit: 2156  
Filed: 1/18/2000 : Examiner: Kenneth Tang  
For: PROGRAMMER/FEEDER :  
SYSTEM TASK LINKING  
PROGRAM

Box Non-Fee Amendment  
Commissioner for Patents  
Washington, D. C. 20231

## RESPONSE /AMENDMENT

Sir:

The following Amendment and Remarks are submitted in response to the Office Action mailed 11/6/2002, following the procedures set forth in 37 CFR §1.121. The Amendment portion begins on page 2 and consists of a clean, amended replacement for a paragraph in the Cross-Reference to Related Application(s) section and for claims 1, 2, 4, 13-16, and 25. Remarks begin on a separate page and are followed by a marked up version of the amended part(s).

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paper, including any extension of time fees, to Deposit Account No. 50-0374 and please credit any excess fees to such deposit account.

Respectfully submitted,



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Date: February 6, 2003

NOTE: The "VERSION WITH MARKINGS TO SHOW CHANGES MADE" begins on the following page.

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

- Please amend the paragraph which begins on page 1, line 9, by inserting the underlined text and deleting strike-through text as follows:

The present application contains subject matter related to a co-pending U.S. Patent Application ~~application serial number 09/419,172, now patent no. 6,449,523 B1, by Bradley Morris Johnson, Lev M. Bolotin, Simon B. Johnson, Carl W. Olson, Bryan D. Powell, and Janine Whan-Tong entitled "FEEDER/PROGRAMMING/BUFFER OPERATING SYSTEM". The related application is assigned to Data I/O Corporation, is identified by docket number 1015 002 and serial number 09/419,172, and is hereby incorporated by reference.~~

IN THE CLAIMS:

- Please amend claims 1, 2, 4, 13-16, and 25 by inserting the underlined text and deleting strike-through text as follows:

1. (Amended) A method for using a computer system for interacting with a processing system to process a microdevice comprising the steps of:

providing processing and programming information related to a microdevice as a task; assembling the processing and programming information for the task in the computer system;

providing the processing and programming information for the task for off-line connection from the computer system to the processing system;

performing the task by the processing system independent of the computer system using processing and programming information obtained through the off-line connection;

developing return information resulting from the processing system using the processing information; and

returning the return information through the off-line connection to the computer system.

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2. (Amended) The method as claimed in claim 1 including the steps of:  
providing a processing system including a programming system on-line with said computer system;  
providing the processing and programming information for the task for on-line connection from the computer system to the processing system; and  
performing the task by the processing system dependent on the computer system using processing and programming information obtained through the on-line connection.
4. (Amended) The method as claimed in claim 1 including the steps of:  
providing an administrator mode;  
inputting the processing and programming information related to the task in the administrator mode;  
editing processing and programming information related to the task in the administrator mode; and  
storing processing and programming information related to the microdevice for the processing system as the task in the administrator mode.
13. (Amended) A method for using a computer system for interacting with a programmer/feeder system to process a programmable microdevice comprising the steps of:  
providing programming information related to a programmable microdevice as a task;  
assembling processing information and the programming information for the task in the computer system;  
providing the processing and programming information for the task for off-line connection from the computer system to the programming system;  
performing the task by the programmer/feeder system independent of the computer system using processing and programming information obtained through the off-line connection;  
developing return information resulting from the programmer/feeder system using the programming-processing information; and  
returning the return information through the off-line connection to the computer system.

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14. (Amended) The method as claimed in claim 13 including the steps of:  
providing a processing and a programming system on-line with said computer system;  
providing the processing and programming information for the task for on-line  
connection from the computer system to the programming system; and  
performing the task by the programming system dependent on the computer system  
using programming information obtained through the on-line connection.
15. (Amended) The method as claimed in claim 13 including the steps of:  
providing an operator mode;  
using the processing and programming information for the task in the operator mode  
from the computer to the processing system;  
returning the return information in the operator mode through the off-line connection  
to the computer system; and  
storing the return information in the computer system.
16. (Amended) The method as claimed in claim 13 including the steps of:  
providing an administrator mode;  
inputting the processing and programming information related to the task in the  
administrator mode;  
editing the processing and programming information related to the task in the  
administrator mode; and  
storing the processing and programming information related to the programmable  
microdevice for the programmer/feeder system as the task in the administrator  
mode.
25. (Amended) The method as claimed in claim 13 including the step of:  
providing information for affecting changes selected from a group consisting of  
software, firmware, and a combination thereof by using the a portable memory  
medium.